

## COUNTY OF LOS ANGELES FIRE DEPARTMENT

## FIRE PREVENTION DIVISION

## COMPRESSED GASES PERMIT REQUIREMENTS

Article 1, section 105 of the Los Angeles County Fire Code states... a permit shall be obtained from the Fire Prevention Division prior to engaging in the following: ... to store use or handle at normal temperatures and pressures compressed gases in excess of the exempt amounts listed in Table 105-A. See Article 74. Additional requirements may be applicable.

<u>Marking</u> Compressed gas containers, cylinders, tanks and systems shall be marked in accordance with nationally recognized standards and in accordance with Section 7401.5 Stationary compressed gas containers, cylinders and tanks shall be marked in accordance with UFC Standard 79-3. Markings shall be visible from any direction of approach.

<u>Security</u> Compressed gas containers, cylinders, tanks and systems shall be secured against accidental dislodgement and against access by unauthorized personnel. Compressed gas containers, cylinders, tanks and systems which could be exposed to physical damage shall be protected. Guard posts or other mean s shall be provided to protect compressed gas containers, cylinders, tanks and systems from vehicular damage. Compressed gas containers, cylinders, tanks and systems shall be secured to prevent falling due to contact, vibration or seismic activity by one of the following methods:

- 1. Securing to a fixed object with one or more restraints,
- 2. Securing on a cart or other mobile device designed for the movement of compressed gas containers, cylinders or tanks,
- 3. Nesting of compressed gas containers, cylinders or tanks at container filling or servicing facilities, or in seller's warehouses not accessible to the public.
- 4. Securing of compressed gas containers, cylinders and tanks to or within a rack, framework, cabinet or similar assembly designed for such use.

<u>Valve Protection</u> Compressed gas container, cylinder and tank valves shall be protected from physical damage by means of protective caps, collars or similar devices. Caps, collars or other protective devices shall be in place except when containers, cylinders or tanks are in use, being serviced or filled.

<u>Separation from Hazardous Conditions</u> Compressed gas containers, cylinders, tanks and systems in storage or use shall be separated from materials and conditions which present exposure hazards to or from each other. Compressed gas containers, cylinders and tanks shall be separated from each other based on the hazard class of their contents. Combustible waste, vegetation and similar materials shall be kept a minimum of 10 feet (3048mm) from compressed gas containers, cylinders, tanks and systems.

<u>Upright Storage</u> Liquefied gas, compressed gas containers, cylinders and tanks, except those designated for use in a horizontal position, and all compressed gas containers, cylinders and tanks containing nonliquefied gases shall be stored in a "valve end up" upright position. An upright position shall include conditions where the container, cylinder or tank axis is inclined as much as 45 degrees from the vertical.

<u>Use and Handling</u> Compressed gas systems shall be suitable for the use intended and shall be designed by persons competent in such design. Where nationally recognized good practices or standards have been established for the process employed, such practices and standards shall be followed. Compressed gas equipment, machinery and processes shall be in accordance with Section 8001.4.4.

<u>Controls</u> Compressed gas system controls shall be designed to prevent materials from entering or leaving the process or reaction systems at other than the intended time, rate or path. Automatic controls shall be designed to be fail-safe.

<u>Piping Systems</u> Piping, including tubing, valves, fittings and pressure regulators, shall be in accordance with Sections 7403 and 8001.4.3. Piping, tubing, pressure regulators, valves and other apparatus shall be kept gas-tight to prevent leakage.

<u>Valves</u> Valves utilized on compressed gas systems shall be suitable for the use intended and shall be accessible. Valve handles or required operators for required shutoff valves shall not be removed or otherwise altered to prevent access.

<u>Venting</u> Venting of gases shall be directed to an approved location. Venting shall be in accordance with the Mechanical Code.

<u>Upright Use</u> Liquefied gas, compressed gas containers, cylinders and tanks, except those designated for use in a horizontal position, and all compressed gas containers, cylinders and tanks containing nonliquefied gases shall be used in a "valve end up" upright position. An upright position shall include conditions where the container, cylinder or tank axis is inclined as much as 45 degrees from the vertical. Nonflammable liquefied gases may be used in the inverted position when the liquid phase is used, provided that the container, cylinder or tank is properly secured and the dispensing apparatus is designed for liquefied gas use.

<u>Transfer</u> Transfer of gases between containers, cylinders and tanks shall be performed by qualified personnel using equipment and operating procedures in accordance with nationally recognized standards.

<u>Use of Compressed Gas for Inflation</u> Inflatable equipment, devices or balloons shall only be pressurized or filled with compressed air or inert gases.

<u>Carts and Trucks</u> Containers, cylinders and tanks shall be moved using an approved method. Where containers, cylinders and tanks are moved by hand cart, hand truck or other mobile device, such carts, trucks or devices shall be designed for the secure movement of containers, cylinders or tanks. Carts and trucks utilized for transport of compressed gas containers, cylinders and tanks exterior to buildings shall be designed so that containers, cylinder and tanks will be secured against dropping or otherwise striking violently against each other or other surfaces.

<u>Lifting Devices</u> Ropes, chains or slings shall not be used to suspend compressed gas containers, cylinders and tanks unless provisions at the time of manufacture have been made on the container, cylinder or tank for appropriate lifting attachments, such as lugs.

<u>Sources of Ignition</u> Open flames and high-temperature devices shall not be used in a manner which creates a hazardous condition. Compressed gas containers, cylinders and tanks that have been exposed to fire shall be removed from service.

Wiring & Equipment Electrical wiring and equipment shall be in accordance with the Electrical Code.

Additional			
Requirements			
3/2003			